

IN THE CLAIMS:

Please amend claims 1-12 as follows:

1. Toothbrush with a toothbrush head [(312; 412; 512; 612)] supported by a toothbrush body [(310; 410; 510; 610)], the toothbrush head [(312; 412; 512; 612)] comprising:

a bristle carrying bristle carrier [(320; 420; 520; 620)], the bristle carrier [(20; 220; 320; 420; 520; 620)] rotatably supported for rotating about a rotation axis and adapted to be reversibly rotatably driven by an eccentric drive [(50, 52)], wherein the eccentric drive has a drive shaft [(50)] rotating in one direction and arranged perpendicular to the rotation axis [(R)] of the bristle carrier [(320; 420; 520; 620)] and centrally extending through the toothbrush body [(310; 410; 510; 610)], with an end face of the drive shaft [(50)] having an eccentric pin [(52)], wherein the bristle carrier [(320; 420; 520; 620)] has a guide bore or a guide channel [(328, 428; 528; 628)] extending in the axial direction, with the eccentric pin [(52)] guided in the guide bore or said guide channel, [characterized in that] wherein the bristle carrier [(320; 420; 520; 620)] is supported on the toothbrush head [(312; 412; 512; 612)] for movement in the axial direction and adapted to be reversibly driven by the eccentric drive [(40, 50, 52)] so as to move backward and forward along a linear path, [that] wherein the bristle carrier [(320; 420; 520; 620)] has at least one drive pin channel [(324; 424; 524; 624)] which is disposed along a circumferential segment of the bristle carrier [(320; 420; 520; 620)] and inclined in the axial direction, and [that the] wherein at least one drive pin [(314; 414; 514; 614)] which is guided in the drive pin channel [(324; 424; 524; 624)], is disposed on the toothbrush head [(312; 412; 512; 614)].

2. The toothbrush according to claim 1, [characterized in] wherein [that the] two diametrically opposed guide pins [(314)] are disposed on the toothbrush head [(310)].

3. The toothbrush according to claim 1, wherein [or 2, characterized in that] the guide channel [(628)] is formed directly on the bristle carrier [(620)].

4. The toothbrush according to claim 1, wherein [or 2, characterized in that] the guide channel is part of a sliding block which is axially affixed to the bristle carrier.

5. The toothbrush according to claim 1, wherein [or 2, characterized in that] a sliding block [(330; 430; 530)] is supported for axial displacement in the guide channel [(328; 428; 528)], and [that] said sliding block [(330; 430; 530)] has a drive-pin bore [(332; 432; 532)] adapted to engage with the eccentric pin [(52)].

6. The toothbrush according to claim 4, wherein [or 5, characterized in that] the sliding block [(330; 430)] has a cylindrical shape.

7. The toothbrush according to claim 4, wherein [or 5, characterized in that] the sliding block [(530)] has a spherical shape.

8. Toothbrush with a toothbrush head [(12; 212)] supported by a toothbrush body [(10; 210)], the toothbrush head [(12; 212)] comprising:

a bristle carrying bristle carrier [(20; 220)], the bristle carrier [(20; 220)] rotatably supported for rotating about a rotation axis [(R)] and adapted to be reversibly rotatably driven by an eccentric drive [(40, 50, 52)], wherein the eccentric drive has a drive shaft [(50)] rotating in one direction and arranged perpendicular to the rotation axis [(R)] of the bristle carrier [(20; 220)] and centrally extending through the toothbrush body [(10, 210)], with an end face of the drive shaft [(50)] having an eccentric pin [(52)], wherein the bristle carrier [(20; 220)] has a guide bore or a guide channel [(28; 228)] extending in the axial direction, with the eccentric pin [(52)] guided in the guide bore or guide channel, [characterized in that] wherein the bristle carrier [(20; 220)] is supported on the toothbrush head [(12; 212)] for movement in the axial direction and adapted to be reversibly driven by the eccentric drive [(40, 50, 52)] so as to move backward and forward along a linear path, [that] and the eccentric pin [(52)] engages in a drive-pin bore [(32; 232)] or a guide channel [(28; 228)], and is mounted axially fixed in the drive-pin bore [(32; 232)] or is axially moveable in the guide channel [(28, 228)] between limit stops.

9. The toothbrush according to claim 8, [thereby characterized, that] wherein the toothbrush head [(12; 212)] has at least one bearing channel [(14; 214)] adapted to engage with at least one corresponding bearing projection [(24; 224)] which limits the backward and forward linear motion (stroke) of the bristle carrier [(20; 220)].

10. The toothbrush according to claim 8, wherein [or 9, characterized in that] a sliding block [(30; 230)] is provided which includes a drive-pin bore [(32; 232)] or a guide channel adapted to engage with the eccentric pin [(52)], and [that] wherein the sliding block [(30; 230)] is axially affixed in the guide channel [(28; 228)] or axially moveable therein between limit [stop] stops.

11. The toothbrush according to claim 10, [characterized in that] wherein the sliding block [(130; 230; 330; 430)] has a cylindrical shape.

12. The toothbrush according to claim 10, [characterized in that] wherein the sliding block [(530)] has a spherical shape.

A clean copy of the amended claims is attached hereto.

Please add the following claims 13-40:

13. The toothbrush according to claim 2, wherein the guide channel is formed directly on the bristle carrier.

14. The toothbrush according to claim 2, wherein the guide channel is part of a sliding block which is axially affixed to the bristle carrier.

15. The toothbrush according to claim 2, wherein a sliding block is supported for axial displacement in the guide channel, and the sliding block has a drive-pin bore adapted to engage with the eccentric pin.
16. The toothbrush according to claim 14, wherein the sliding block has a cylindrical shape.
17. The toothbrush according to claim 5, wherein the sliding block has a cylindrical shape.
18. The toothbrush according to claim 15, wherein the sliding block has a cylindrical shape.
19. The toothbrush according to claim 14, wherein the sliding block has a spherical shape.
20. The toothbrush according to claim 5, wherein the sliding block has a spherical shape.
21. The toothbrush according to claim 15, wherein the sliding block has a spherical shape.
22. The toothbrush according to claim 9, wherein a sliding block is provided which includes a drive-pin bore or a guide channel adapted to engage with the eccentric pin, and wherein the sliding block is axially affixed in the guide channel or axially moveable therein between limit stops.
23. The toothbrush according to claim 22, wherein the sliding block has a cylindrical shape.

24. The toothbrush according to claim 22, wherein the sliding block has a spherical shape

25. A toothbrush, comprising:

a body;

a head supported by the body;

a bristle carrier coupled to the head; and

a motor coupled to the bristle carrier, wherein the motor causes the bristle carrier to reversibly rotate about a rotation axis while oscillating axially.

26. The toothbrush according to claim 25, wherein the axial oscillation is longitudinal.

27. The toothbrush according to claim 25, wherein the axial oscillation is vertical.

28. The toothbrush according to claim 25, wherein the motor is coupled to the bristle carrier by a drive shaft, said drive shaft having an eccentric pin.

29. The toothbrush according to claim 28, wherein the toothbrush head includes a circumferential bearing channel and a bearing journal disposed on said toothbrush head.

30. The toothbrush according to claim 29, wherein the bristle carrier includes a bearing bore that engages said bearing journal, at least one bearing projection that engages said bearing channel, and a recess extending in the axial direction.

31. The toothbrush according to claim 30, wherein the toothbrush head includes a sliding block having a guide channel that engages the eccentric pin, said sliding block being inserted in said recess of said bristle carrier.
32. The toothbrush according to claim 29, wherein the toothbrush head includes two diametrically opposed, radially inwardly-facing drive pins inserted on the toothbrush head, said drive pins being inclined in the axial direction.
33. The toothbrush according to claim 32, wherein the bristle carrier includes two drive channels disposed along a circumferential segment of said bristle carrier.
34. The toothbrush according to claim 29, wherein the toothbrush head includes a drive pin and a corresponding drive channel.
35. The toothbrush according to claim 31, wherein the sliding block has a cylindrical shape.
36. The toothbrush according to claim 31, wherein the sliding block has a spherical shape.
37. The toothbrush according to claim 30, wherein the bristle carrier further includes a guide channel that engages the eccentric pin.

38. A method for operating a mechanical toothbrush, comprising:

reversibly rotating a bristle carrier attached to a toothbrush head of the mechanical toothbrush, and

while reversibly rotating the bristle carrier, simultaneously oscillating the bristle carrier in an axial direction.

39. The method for operating a mechanical toothbrush according to claim 38, wherein rotating the bristle carrier while simultaneously oscillating the bristle carrier in an axial direction uses a motor coupled to a drive shaft having an eccentric pin that engages the bristle carrier.

40. The method for operating a mechanical toothbrush according to claim 38, wherein rotating the bristle carrier while simultaneously oscillating the bristle carrier in an axial direction uses a motor coupled to a drive shaft having an eccentric pin that engages a sliding block and wherein the sliding block engages the bristle carrier.